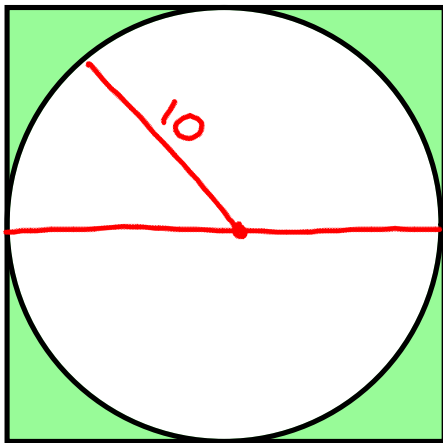


04/09/14 Agenda:

- Review Homework
 - Worksheet 7 - Area & Circumference of Circles
- Sections 11.1 - 11.5 - Area of Complex Figures
- Return Quiz
- Homework
 - Worksheet 8 - Area of Complex Figures

Warm Up - **Get Your Homework Out!**

Find the shaded area of the figure: use 3.14 for π



$$\begin{aligned} A_o &= \pi r^2 \\ &= 3.14 \cdot 10^2 \\ &= 314 \text{ ft}^2 \end{aligned}$$

20 ft.

$$A_{\square} - A_o$$

$$A_{\square} = 20 \cdot 20 = 400 \text{ ft}^2$$

$$\begin{array}{r} 400 \\ - 314 \\ \hline 86 \text{ ft}^2 \end{array}$$

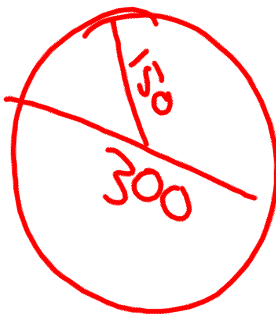
$$86 \text{ ft}^2$$

HOW MANY TOY CARS???

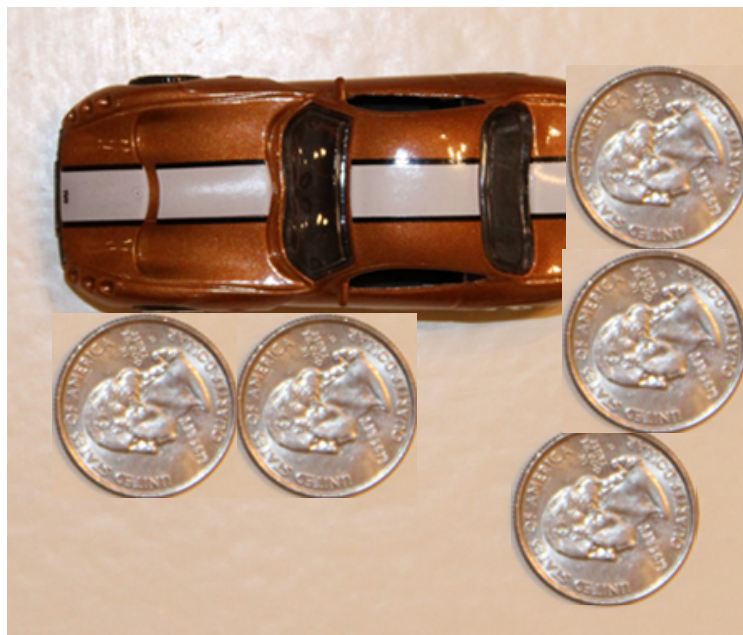
- 1) Guess as close as you can.
- 2) Give an answer you know is too high.
- 3) Give an answer you know is too low.



300 cm



$$\begin{aligned} A &= \pi \cdot 150^2 \\ &= 3.14 \cdot 22500 \\ &= 70,650 \text{ cm}^2 \end{aligned}$$



LENGTH $\approx 3\frac{1}{4}$ Quarters.

WIDTH $\approx 1\frac{1}{4}$ Q.

CAR $\approx 7.8\text{cm} \times 3.5\text{cm}$

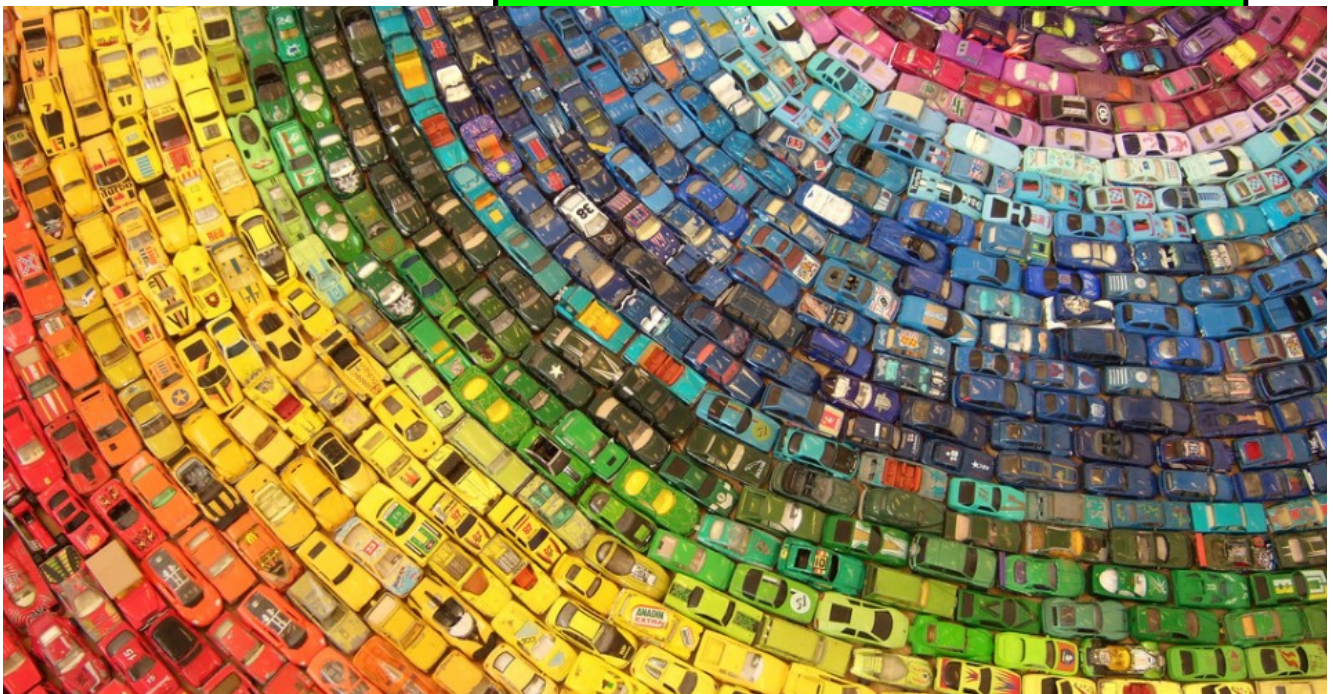
27.3cm^2

Diameter of a quarter = 2.4 cm

$$\frac{70,650\text{cm}^2}{27.3\text{cm}^2} = 2588_{\text{CARS}}$$

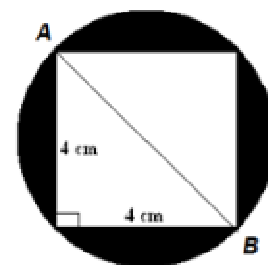
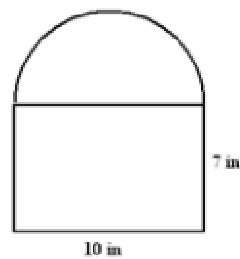
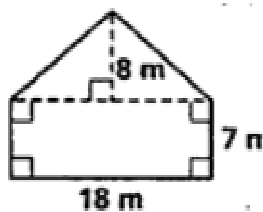
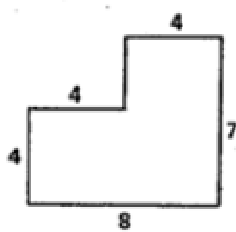
ANSWER: 2,500 toy cars

"Car Atlas" by David T. Waller



Composite Figures

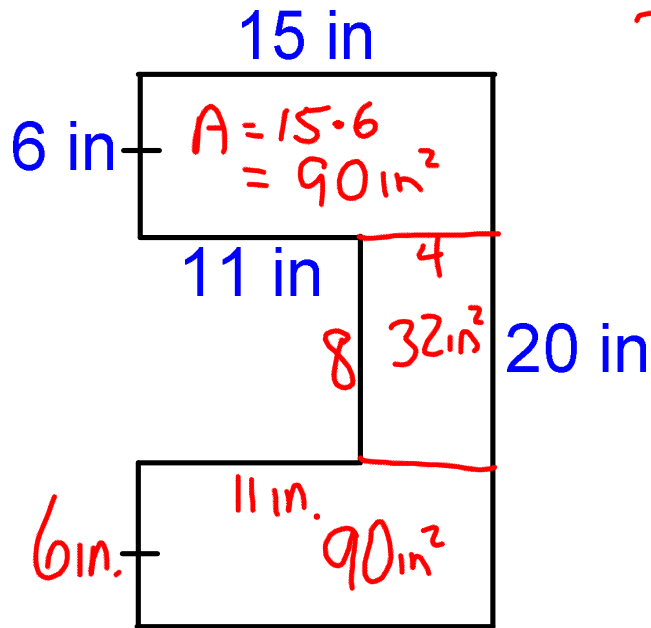
Made up of multiple shapes.



Perimeter =

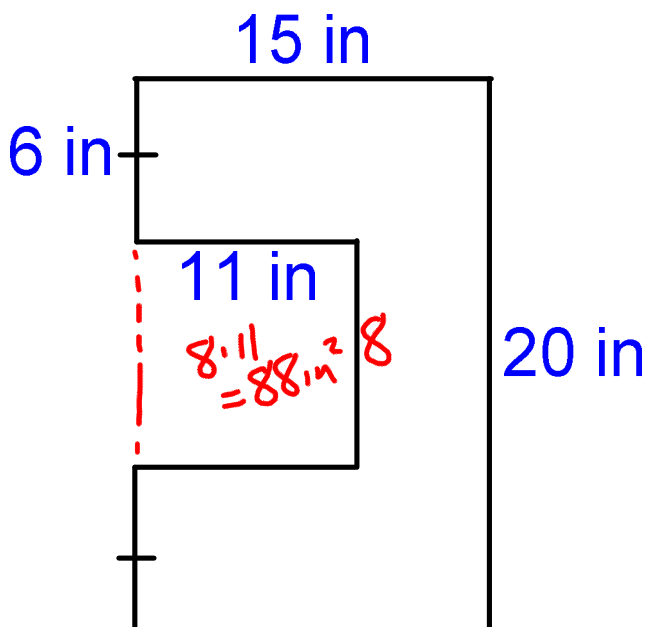
Area =

Find Perimeter AND Area



$$P = 15 + 20 + 15 + 6 + 11 + 8 + 11 + 6$$

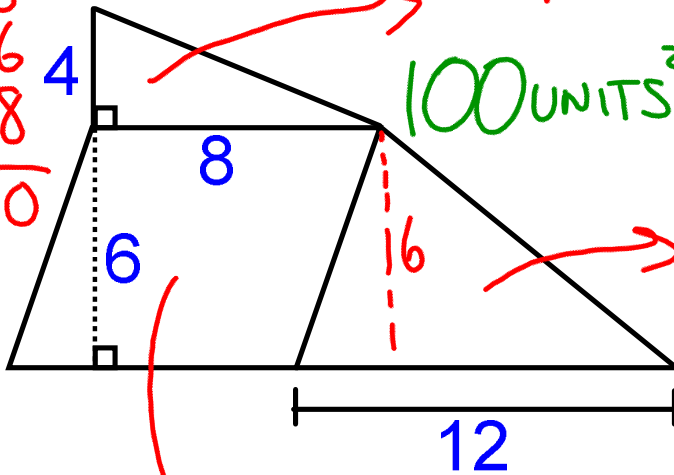
$$\begin{array}{r} 90 \\ 32 \\ 90 \\ \hline 212 \text{ in}^2 \end{array}$$



$$\begin{array}{r} 15 \cdot 20 = 300 \text{ in}^2 \\ - 88 \\ \hline 212 \text{ in}^2 \end{array}$$

Find AREA:

$$\begin{array}{r} 16 \\ 36 \\ 48 \\ \hline 100 \end{array}$$

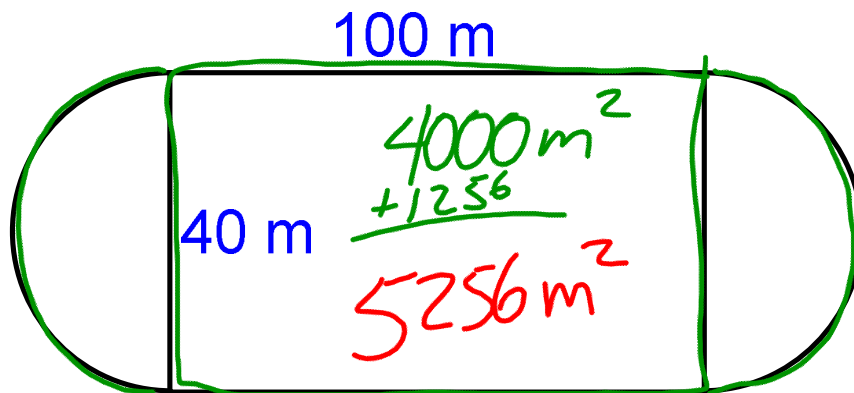


$$A = \frac{1}{2}bh = \frac{1}{2} \cdot 4 \cdot 8 = 16 \text{ units}^2$$

$$= \frac{1}{2} \cdot 12 \cdot 6 = 36 \text{ units}^2$$

$$= b \cdot h = 6 \cdot 8 = 48 \text{ units}$$

Find the perimeter and area of this track:



$$\begin{aligned} A &= \pi 20^2 \\ &= 400\pi \\ &= 1256\text{ m}^2 \end{aligned}$$